

REVERSE OSMOSIS: OSMO PURE RO 8 SYSTEMS

Scope of supply:

Industrial range of RO series, pre-assembled and ready for plug and play installation on site. The RO unit is built upon a stainless steel frame including suitable sized pre-filter, HP pump, membrane modules, pressure gauges, conductivity measurement, flow sensors and control panel.

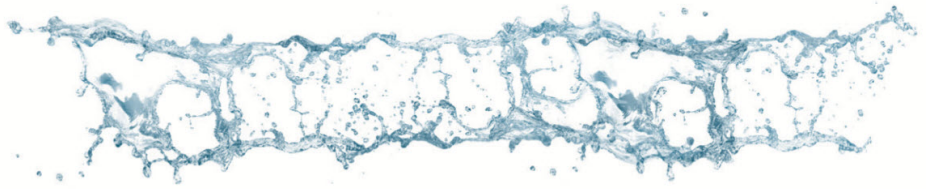
Set up of the RO unit:

- 5 micron pre-filter in feed water inlet to safeguard RO unit
- Pressure gauges before and after pre-filtration.
- Inlet solenoid valve (NC)
- Pressure switch to safeguard the RO pump against possible dry running
- Centrifugal pump for boosting pressure towards the membranes
- Spiral wound composite polyamide membranes in GRP pressure vessels.
- Pressure gauges before and after the membrane modules.
- Conductivity probe in permeate outlet - temperature compensated.
- Flow sensors in permeate, concentrate and circulation stream.
- Concentrate regulator valve to adjust recovery ratio of the RO unit.
- Circulation regulator valve to adjust circulation stream and pressure over the the RO unit.



Control of the RO unit:

Central control panel mounted on front of the SS frame including plc controller with 2-line LCD display, temperature compensated conductivity transmitter and flow sensors. The status of the RO unit (service, rinse or stand-by), permeate, concentrate and circulation flow of the unit can be read on the LCD display. The recovery ratio of the RO unit during service, conductivity of the permeate stream, level indication of optional storage tank and alarm messages can also be viewed. Inputs available for feed water pressure switch, external stop signal, motor relay, analogue or digital level input. Outputs available for inlet solenoid valve, RO pump, concentrate rinse valve, permeate valve, potential free alarm output.



Features

- Alarm indication and automatic switch off when feed water pressure is below set point (0.8 bar).
- Display read out of permeate conductivity and flows within the RO unit
- Alarm indication when permeate conductivity has exceeded minimum or maximum set point.
- Automatic membrane flush before RO unit goes into stand-by position.
- Automatic interval rinse after time interval between two service periods.
- Alarm indication when recovery ratio has gone over the set point.
- Alarm indication when concentrate stream has gone below minimum set point.
- Alarm indication when circulation stream has gone below minimum set point.
- Alarm indication when permeate has exceeded minimum or maximum set point.
- Automatic switching of the RO unit , depending on alarm settings.
- Service hours counter: time and date in display.
- Alarm history; read out of the past 30 alarm messages of the RO unit.
- Modular set up allowing easy upgrade should a larger future flow capacity be required within the available series limits.

| TECHNICAL DATA | | OSMO-Pure RO8-2900 | OSMO-Pure RO8-4000 | OSMO-Pure RO8-5500 | OSMO-Pure RO8-6500 | OSMO-Pure RO8-8000 |
|---------------------------|-------------------|--|-----------------------|-----------------------|-----------------------|-----------------------|
| Permeate capacity | m ³ /h | 2.9 | 4.0 | 5.50 | 6.50 | 8.00 |
| Daily permeate production | m ³ | 67 | 92 | 127 | 150 | 185 |
| Recovery ratio | % | 75 | 75 | 75 | 75 | 75 |
| Working pressure | bar | 13.8 | 12.9 | 13.3 | 12.7 | 13.2 |
| Feed water | m ³ /h | 3.90 | 5.33 | 7.33 | 8.67 | 10.67 |
| Salt rejection | % | 96-99 | 96-99 | 96-99 | 96-99 | 96-99 |
| Max TDS feed water | mg/l | 1000 | 1000 | 1000 | 1000 | 1000 |
| Area /service temp. | °C | 5-30 | 5-30 | 5-30 | 5-30 | 5-30 |
| Water connections | | | | | | |
| Feed | DN | 32 | 32 | 40 | 40 | 50 |
| Permeate | DN | 25 | 32 | 32 | 40 | 40 |
| Drain | DN | 50 | 50 | 50 | 50 | 50 |
| Electrical connections | V, Hz | 400 V / 3 Ph / 50 Hz | | | | |
| Power installed | kW | 5.50 | 5.50 | 5.50 | 5.50 | 7.50 |
| Dimensions | mm | width = 2650 depth = 900 height = 1955 | | | | |

The RO unit design is based upon pre-treated feed water quality (chlorine, iron and manganese free) max TDS of 1000 mg/l; temperature 15°C; SDI < 3 and inlet pressure min. 2,0 bar. The feed water quality will ultimately determine the performance of the RO unit.

Disclaimer: To the best of our knowledge, the technical data contained herein is true and accurate at the date of issue and is subject to change without prior notice. User must contact Lubron to verify accuracy of information before specifying or ordering equipment. No guarantee of accuracy is given or implied.



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